

ABSTRACT

The present invention provides a semiconductor device in which, in order to prevent wiring delay, an electromagnetic wave is radiated from a transmitting dipole antenna placed on a semiconductor chip and received with a receiving antenna placed in a circuit block included in another semiconductor chip, instead of long metal wires or via-hole interconnection. In the semiconductor device, wireless interconnection is accomplished in such a manner that the electromagnetic wave radiated from the transmitting antenna (3) placed on the semiconductor substrate (1) is transmitted to the receiving antenna (4) placed on the semiconductor substrate (1) or receiving antennas placed on semiconductor substrates; the semiconductor substrates have broadband transmitting/receiving antennas; a signal is transmitted from one or more of the semiconductor substrates and received with the receiving antenna or antennas placed on the semiconductor substrate (1) or substrates, respectively; and the signal transmitted and received has an ultra-wide band communication function.